SPECIFICATIONS
NIM Model 380A
MULTIPLICITY LOGIC UNIT

INPUT CHARACTERISTICS

Logic Inputs:	32; reflections < 7% for inputs of 2 ns risetime; input range − 650 mV to − 900 mV (NIM level); minimum input width 6 ns.
Veto:	Common to all channels; direct-coupled; − 600 mV or greater inhibits; impedance 50 Ω; reflections < 7% for inputs of 2 ns risetime. Veto must overlap logic inputs.
Slow (Bin) Gate:	Via rear connector, with rear-panel On-Off switch; risetimes and falltimes approximately 20 ns; quiescently above + 4 volts, clamping to ground inhibits; direct-coupled.
Clear:	NIM level; minimum duration 10 ns.

OUTPUT CHARACTERISTICS

> N Outputs:	2 bridged negative outputs (quiescently 0 mA, − 32 mA during output); one complement (quiescently − 16 mA, 0 mA during output); duration variable from 25-100 ns by means of front panel-multiturn potentiometer in pulsed mode, dc level in latched mode. Must be set ≥ maximum possible overlap time of the logic inputs (since it serves to inhibit the = N outputs when present).
= N Outputs:	2 bridged negative outputs (quiescently 0 mA, −32 mA during output); one complement (quiescently −16 mA, 0 mA during output); duration 20 ns (internally adjustable) in pulse mode, dc level in latched mode.
Risetimes and Falltimes:	3 ns.
Analog Summing Output:	One; amplitude − 50 mV into 50 Ω for each coincident input pulse; duration equal to the overlap time of the coincident input signals; impedance approx. 6 Ω.

GENERAL

Coincidence Level Control:	From 1 to 6 plus "off"; front-panel switch.
Input Double-Pulse Resolution:	< 10 ns.
Output Double-Pulse Resolution:	< 30 ns.
Modes:	Pulse or latched; controls output duration.
Delay:	Input-Output, 12 ns for > N output, 8 ns following end of = N condition for = N output.
Packaging:	In conformance with AEC standard for nuclear modules (AEC Report TID-20893); RF shielded AEC #1 module fitting 12/bin; dimensions 1.375 x 8.75 x 10 inches deep.
Current Requirements:	+ 6 V at 95 mA − 6 V at 400 mA + 24 V at 45 mA

SPECIFICATIONS SUBJECT TO CHANGE